BULLETIN NUMBER 12

TASK: Radio Communications

OBJECTIVE: To make better and more efficient use of Air Traffic Control (ATC) frequencies.

STANDARDS: Aeronautical Information Manual (AIM)

DESCRIPTION:

1. The Facts.

When air traffic operations increase, air traffic control frequencies often approach the saturation point. When this occurs it becomes more difficult for pilots and controllers to communicate vital information because of frequency congestion.

We have all experienced this as the airspace over Central Florida becomes busier and the tempo of operations increases. To be able to continue to operate in and maintain a safe environment, the efficient and expeditious flow of information between pilots and controllers must be preserved.

The Florida Association of Flight Instructors offers the following suggestions:

2. What can we do.

<u>Reading back clearances.</u>

There is an increasing tendency by pilots to read back every word that the controller says. This practice, more than any other one, congests frequencies and consumes critical transmission time.

Attempting to memorize every word that a controller says and then parroting it back word-for-word is not required nor desired. Pilots must be selective with what they read back to ATC. The great majority of transmissions require only an acknowledgement of it's reception.

A few examples are: a clearance to taxi, or acknowledging a request by ATC to report downwind, or to turn an early crosswind. These should be acknowledged by simply repeating the aircraft identification - "CESSNA 1234C" or "CESSNA 34C." as appropriate.

NOTE:	**During flight or on the ground, pilots must read back all hold-short assignments. In addition, pilots should always read back runway assignments when taxi instructions are received.**

In cases where numbers are used such as in headings, altitudes, speeds, time, frequencies, or squawk codes it is appropriate to read back the appropriate numbers in the order given.

NOTE:	**When receiving an IFR clearance it is necessary to make a written record of the clearance and read back only critical operational items such as clearance limit, route, altitude, departure frequency and squawk code.**

Learning to Communicate.

To help pilots learn to communicate efficiently in a high density communications environment, flight instructors must play a more active role in educating pilots on correct communication practices. The use of the Aeronautical Information Manual (AIM) provides specific guidance.

Regrettably, new pilots are often left to themselves to figure out what to say and how to say it. Often they learn by example - other transmissions that they hear. More often than not these may be poor examples and the new pilot, unless corrected by the instructor, learns bad communications habits.

When looking for good radio communications examples for their students to emulate, instructors should have their students listen to air traffic frequencies that primarily serve airline operations. Airline pilots get the job done most efficiently with the fewest words.

The best time to learn how to properly communicate with ATC is on the ground using a portable handheld radio. The flight instructor must be with the student during this period to instruct the student on radio transmissions that are correct and those that are incorrect.

Finally, the flight instructor must allow the student the opportunity to use the communications radio. Many times the instructor will communicate with ATC thus believing this is helping the student by reducing their workload. This could not be further from the truth. The student must be allowed to practice radio communications and the flight instructor must critique in order for the student to develop the ability to effective communicate.

"Stepping" on other transmissions.

Pilots new to using the radio have trouble understanding what is being said and don't pay attention to other transmissions (conversations) taking place on the frequency. Instead they listen only for their aircraft number. When they hear their number, they pay attention.

A similar problems occurs when attempting to transmit in a busy communications environment. Rather than following along and listening to the general flow of conversation and transmitting when a natural break occurs, they listen only for a break and key their transmitter. This interrupts dialogues and often results in two simultaneous transmissions where someone's transmission is blocked or "stepped on." This all causes unnecessary repeats and impedes the flow of vital information.

The flight instructor needs to teach their students to regularly follow the transmissions of others on the frequency. Instructors can and should ask their students periodically what was just said when a transmission is made by another pilot or controller. If the pilot reveals his location, the student should know where that aircraft is located. By doing this, not only do students catch transmissions made to them more easily, they also are able to make transmissions more effectively without constantly interrupting or "stepping" on someone else.

NOTE:	**Pilots must listen to transmissions from other pilots and controllers, which will aid in making the pilot more aware of information that may become vital. In addition, an informed pilot is better prepared to make early corrections, if necessary.**

Making initial calls to ATC.

When making initial radio calls to ATC, certain procedures are anticipated. Before transmitting, it is essential that pilots follow the four W's and organize what they are going to say along these lines.

Who you are calling -
Who you are -
Where you are -
What you want to do -

Failure to do this leads to hesitation and disorganization. This in turn leads to confusion and uncertainty on the part of the receiver. Ultimately it leads to unnecessary repeats.

Students unfamiliar with radio communication should write down what they are going to say to ATC. Then at the appropriate time read it to ATC. This procedure can be accomplished until the student becomes more familiar and confident on radio communications.

Ground Control and Control Tower without Approach/Departure Control. When communicating to Ground Control or a Control Tower, it is normal procedure to continue with the message without waiting for an acknowledgement when the message is routine in nature. The pilot should transmit their aircraft identification, location, and intentions in the initial transmission.

If on the other hand the transmission is non-routine in nature, it is usually best to wait for them to respond before going on with the message, because they don't anticipate what you are going to tell them and you will probably have to repeat it.

Approach/Departure Control. When making an initial call to an approach control facility or an air traffic control center, unlike tower or ground control, it is customary to wait for them to respond to the initial call before proceeding with the message or request. The pilot should transmit the name of the facility and aircraft identification only.

Approach or Center are not normally ready to receive a transmission from a new aircraft joining the frequency unless it is being officially handed off from one sector to another. After the pilot is instructed by ATC to proceed with their transmission it is then appropriate state the present location including altitude and intentions.

Too Many Words.

Brevity (to be brief) is important. Many times pilots use additional and unnecessary words in their transmission to ATC. Flight instructors must teach their students to keep radio transmissions short without compromising the understanding and acknowledgement of each transmission.

Written By: **Steven E. Moore, FAFI President**
Rodney G. Phipps, FAFI Safety Chairman